Mutual Funds and Other Investment Companies

Chapter 4

Investment Companies

- financial intermediaries that collect funds from individual investors and invest in a portfolio of assets
- shares = claims to portfolio
- services
 - administration and record keeping
 - diversification and divisibility
 - professional management
 - reduced transaction costs

Net Asset Value

- used as a basis for the valuation of the shares issued by the investment company (the "value" of a share)
 - selling new shares
 - redeeming existing shares
- calculation

$$NAV = \frac{\text{Market value of assets} - \text{Liabilities}}{\text{Shares outstanding}}$$

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Types of Investment Organizations

- Unit Investment Trusts
 - portfolio is fixed for the entire life of the fund (unmanaged fund)
 - lower management fees
 - shares called *redeemable trust certificates*, usually sold at a premium

Types of Investment Organizations (cont.)

- Managed Investment Companies
 - management company manages the portfolio for an annual fee
 - open-end = ready to redeem or issue shares
 - not traded on exchanges investors buy or sell to the issuer → number of shares changes daily
 - shares price ≥ NAV (if the fund carries a *load*)
 - *closed-end* = do not redeem or issue shares
 - traded on organized exchanges investors trade with other investors
 - price ≠ NAV (why? if price < NAV, i.e. selling at a discount to NAV, higher dividend yield!)

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Types of Investment Organizations (cont.)

- Other investment organizations
 - commingled funds = partnerships of investors, similar to open-end funds
 - real estate investment trusts (REITs) = similar to closed-end funds investing in real estate, either directly (equity trusts) or indirectly (mortgage trusts)
 - hedge funds = "mutual funds" not registered with the SEC and open only to wealthy or institutional investors, speculating on valuation differences between assets

Open-End and Closed-End Funds: Key Differences

- Shares outstanding
 - closed-end: no change unless new stock is offered
 - open-end: changes when new shares are sold or old shares are redeemed
- Pricing
 - open-end: NAV
 - closed-end: Premium or discount to NAV

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Mutual Funds

- open-end investment companies
- dominant for of investment company (around 90% of investment company assets)
- specific investment strategy outlined in its prospectus
- management companies usually manage a family of mutual funds (diversification)
- management companies: Vanguard, Fidelity, Putnam

Investment Policies

- Money Market
- Equity
 - income funds = high dividend yields
 - growth funds = capital gains (riskier)
- Fixed Income (bond)
- International
- Balanced and Income
- Asset Allocation
- Index
- Specialized Sector

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Costs of Investing in Mutual Funds

- Fee Structure
 - front-end load = commission (sales charge) paid when buying the shares
 - back-end load = exit fee when selling the shares
 - operating expenses = costs incurred by the fund in operating the portfolio (expressed as percentage of total assets)
 - 12b-1 charges = distribution costs paid by the fund (advertising, annual reports, commissions paid to brokers)
 - operating expenses and 12b-1 charges are deducted annually from the value of assets

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Costs of Investing in Mutual Funds (cont.)

- Fees and Returns
 - the value of an investment after n years is $Value_n = (1 f) \cdot I \cdot (1 + r e b)^n \cdot (1 s)$

where:

- $\blacksquare f = \text{front-end load}$
- $\blacksquare I = \text{sum initially invested in fund}$
- $\blacksquare r = (gross)$ rate of return on shares
- $\blacksquare e$ = operating expenses ratio
- *b* = 12b-1 charges
- $\blacksquare s = \text{back-end load}$

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Costs of Investing in Mutual Funds (cont.)

- Fees and Returns
 - operating expenses and 12b-1 charges are deducted annually from the value of assets
 - rate of return:

$$R = \frac{NAV_1 - NAV_0 + \text{Income and capital gain distributions}}{NAV_0}$$

this measure does not take into account frontor back-end fees

Exchange Traded Funds

- allow investors to trade funds based on indexes like they would trade stock
- examples
 - "spiders" (SPDR = Standard & Poor's Depositary Receipt, based on S&P 500)
 - "qubes" (based on Nasdaq 100)
 - WEBS
- advantages
 - traded continuously during the day
 - price cannot depart too much from NAV
 - cheaper than mutual funds

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A First Look at Fund Performance

- difficult comparison because of risk
- if benchmark is Wilshire 5000 Index (most comprehensive value-weighted index) most funds underperform (even when adjusting for costs)
- do "good managers" continuously perform well (Goetzmann and Ibbotson, 1994)?
 - roughly 62% of "winners" tend to stay winners the following 2 years
 - seems to be a mix of luck and "skill"
 - changed over time (70s vs. 80s)
 - bad performance is more persistent

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